

CLAIMS:

1. A method of delivering a digital document to an intended recipient at a printout station, the method comprising:

5 receiving and securely retaining a transmitted document and a transmitted independently verifiable data record of the intended recipient at a printout station;

obtaining a first token of the intended recipient;

requesting proof of the intended recipient's identity at the printout station using data in the independently verifiable data record of the intended recipient; and

10 releasing the document when the intended recipient has proved their identity by use of a second token that is uniquely related to the first token.

2. A method according to Claim 1, wherein the transmitted document is a fax document and the printout station comprises a fax machine.

15 3. A method according to Claim 1, wherein the retaining step comprises printing out the document as received and placing it in a locked compartment.

20 4. A method according to Claim 3, wherein the releasing step comprises unlocking the compartment where the printed copy of the document is stored.

5. A method according to Claim 1, wherein the retaining step comprises storing the received document in memory without printing out a copy of it on receipt.

25 6. A method according to Claim 5, wherein the releasing step comprises printing out a copy of it.

7. A method according to Claim 1, wherein the requesting step comprises requesting supply of data encoded with the second token which can be decoded with the first token.

8. A method according to Claim 1, wherein the releasing step is carried out when the intended recipient has presented a portable data carrier holding the second token to the printout station and has transferred data to prove their identity.

5 9. A method according to Claim 8, wherein the releasing step further comprises the intended recipient entering a verifiable security identifier into the printout station to establish that they are the legitimate owner of the portable data carrier.

10 10. A method according to Claim 8, wherein the portable data carrier is a smart card and the printout station comprises a smart card reader.

11. A method according to Claim 1, wherein the obtaining step comprises extracting the first token transmitted with the document and the data record.

15 12. A method according to Claim 11, wherein the intended recipient's independently verifiable data record is provided as an intended recipient's digital certificate.

13. A method according to Claim 1, further comprising carrying out an on-line check of the validity of the intended recipient's independently verifiable data record.

20 14. A method according to Claim 1, further comprising instructing a third party to carry out an on-line check of the validity of the intended recipient's independently verifiable data record.

25 15. A method according to Claim 13, wherein the releasing step further comprises only releasing the document if the validity of the independently verifiable data record has been confirmed as a result of the check.

16. A method according to Claim 14, wherein the releasing step further comprises only releasing the document if the validity of the independently verifiable data record has been confirmed as a result of the check.

5 17. A method according to Claim 1, wherein the first and second tokens comprise private and public encryption/decryption keys of the intended recipient.

18. A method according to Claim 1, wherein the transmitted document is encoded and the method further comprises decoding the received document once the intended recipient
10 has proved their identity.

19. A method according to Claim 18, wherein the transmitted document has been encoded using enveloping technique and the decoding step comprises using enveloping decryption techniques.
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20. A method according to Claim 19, wherein the transmitted document has been encoded with a session key and the session key has been encrypted with the first token,
the transmitting step comprises transmitting the encrypted session key to the printout station, and
20 the decoding step comprises decrypting the encrypted session key with the second token and decoding the received document with the decrypted session key.

21. A method of delivering a digital document to an intended recipient at a printout station, the method comprising:
25 obtaining a first token of the intended recipient;
encoding the digital document with a session key, and encrypting the session key with the first token;
transmitting and securely retaining the digital document, the encrypted session key and an independently verifiable data record of the intended recipient at a printout station;

requesting proof of the intended recipient's identity at the printout station using data in the independently verifiable data record of the intended recipient;

receiving proof of the intended recipient's identity in the form of a second token uniquely related to the first token;

5 decrypting the encrypted session key with the second token, decoding the digital document with the decrypted session key, and releasing the document.

22. A method according to Claim 21, wherein the transmitted document is a fax document and the printout station comprises a fax machine.

10 23. A method according to Claim 21, wherein the retaining step comprises printing out the document as received and placing it in a locked compartment.

15 24. A method according to Claim 23, wherein the releasing step comprises unlocking the compartment where the printed copy of the document is stored.

25 25. A method according to Claim 21, wherein the retaining step comprises storing the received document in memory without printing out a copy of it on receipt.

20 26. A method according to Claim 25, wherein the releasing step comprises printing out a copy of it.

27. A method according to Claim 21, wherein the requesting step comprises requesting supply of data encoded with the second token which can be decoded with the first token.

25 28. A method according to Claim 21 wherein the releasing step is carried out when the intended recipient has presented a portable data carrier holding the second token to the printout station and has transferred data to prove their identity.

29. A method according to Claim 28, wherein the releasing step further comprises the intended recipient entering a verifiable security identifier into the printout station to establish that they are the legitimate owner of the portable data carrier.

5 30. A method according to Claim 28, wherein the portable data carrier is a smart card and the printout station comprises a smart card reader.

31. A method according to Claim 21, wherein the obtaining step comprises extracting the first token transmitted with the document and the data record.

10 32. A method according to Claim 31, wherein the intended recipient's independently verifiable data record is provided as an intended recipient's digital certificate.

15 33. A method according to Claim 21, further comprising carrying out an on-line check of the validity of the intended recipient's independently verifiable data record.

20 34. A method according to Claim 21, further comprising instructing a third party to carry out an on-line check of the validity of the intended recipient's independently verifiable data record.

35. A method of according to Claim 33, wherein the releasing step further comprises only releasing the document if the validity of the independently verifiable data record has been confirmed as a result of the check.

25 36. A method according to Claim 34, wherein the releasing step further comprises only releasing the document if the validity of the independently verifiable data record has been confirmed as a result of the check.

30 37. A method according to Claim 21, wherein the first and second tokens comprise private and public encryption/decryption keys of the intended recipient.

38. A method according to Claim 21, wherein the receiving step comprises receiving a plurality of transmitted independently verifiable data records of the intended recipients at the printout station;

the obtaining step comprises obtaining the first tokens of each of the intended recipients;

the requesting step comprises requesting proof of each of the intended recipients' identities at the printout station using data in the independently verifiable data records of the intended recipients; and

the processing step comprises processing each of the intended recipients' response to the request and releasing the document when all of the intended recipients have proved their identity by use of respective second tokens that are each uniquely related to respective ones of the first tokens.

39. A method according to Claim 38, wherein the transmitted document or a session encryption/decryption key of the transmitted document has been sequentially encrypted with each of the first tokens of the intended recipients in a given order and the processing step comprises sequentially decrypting the transmitted document or a session encryption/decryption key with each of the second tokens of the intended recipients in the reverse of the given sequential order.

40. A method of delivering a digital document to intended recipients at a printout station, the method comprising:

receiving and securely retaining a transmitted document and a plurality of independently verifiable data records of the intended recipients at the printout station;

obtaining first tokens of each of the intended recipients;

requesting proof of each of the intended recipient's identities at the printout station using data in the independently verifiable data records of the intended recipients; and

processing each of the intended recipients' responses to the request for proof and releasing the document when all of the intended recipients have proved their identity by use of respective record tokens that are each uniquely related to respective ones of the first tokens.

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41. A device for delivering a digital document to an intended recipient, the device comprising:

a communications module for receiving an electronic version of the transmitted document over a communications network, an independently verifiable data record of the intended recipient, and a first token of the intended recipient;

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a store for securely retaining the transmitted document, the transmitted independently verifiable data record and the first token;

an instruction module for requesting proof of the intended recipient's identity using data provided in the intended recipient's data record;

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a controller for releasing the document when the intended recipient has proved their identity by use of a second token that is uniquely related to the first token; and

a portable data carrier reader for receiving information from a portable data carrier storing the intended recipient's second token.

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42. A device according to Claim 41, wherein the device comprises a fax machine.

43. A device according to Claim 41, wherein the first and second tokens comprise private and public encryption/decryption keys of the intended recipient.

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44. A device according to Claim 41, further comprising one or more lockable compartments and the device is arranged to print out the document as received and place it in one of the compartments.

45. A device according to Claim 44, wherein the controller is arranged to release the locked compartment containing the document, once the intended recipient has proved their identity.

5 46. A device according to Claim 41, wherein the store is arranged to retain securely the received document without printing out a copy of it on receipt.

47. A device according to Claim 46, wherein the controller is arranged to release the document from the store and to print out a copy of it, once the intended recipient has
10 proved their identity.

48. A device according to Claim 41, wherein the controller is arranged to release the received document when the intended recipient has entered a verifiable security identifier into the printout station to establish that they are the legitimate owner of the portable data
15 carrier.

49. A device for delivering a digital document to an intended recipient, the device comprising:

20 a communications module for receiving an electronic version of the transmitted document over a communications network, an independently verifiable data record of the intended recipient, and a first token of the intended recipient;

a store for securely retaining the transmitted document, the transmitted independently verifiable data record and the first token;

25 an instruction module for requesting proof of the intended recipient's identity using data provided in the intended recipient's data record;

a controller for releasing the document when the intended recipient has proved their identity by use of a second token that is uniquely related to the first token; and

30 one or more lockable compartments and the device is arranged to print out the document as received and place it in one of the compartments.

50. A device according to Claim 49, wherein the controller is arranged to release the locked compartment containing the document, once the intended recipient has proved their identity.

5 51. A device according to Claim 49, wherein the device comprises a fax machine.

52. A device according to Claim 49, wherein the first and second tokens comprise private and public encryption/decryption keys of the intended recipient.

10 53. A device according to Claim 49, wherein the controller is arranged to release the received document when the intended recipient has entered a verifiable security identifier into the printout station to establish that they are the legitimate owner of a portable data carrier.

15 54. A method of delivering a digital document from a first station via a communications network to an intended recipient at a second station, the method comprising:

obtaining details of the intended recipient, including an independently verifiable data record of the intended recipient at the first station;

20 determining prior to transmission of the document whether the second station is one which is arranged to implement the present method;

transmitting the document and the independently verifiable data record of the intended recipient to the second station;

receiving and securely retaining the transmitted document and data record at the second station;

25 obtaining a first part of an intended recipient's identifying token at the second station;

requesting proof of the intended recipient's identity at the second station using the transmitted independently verifiable data record; and

30 releasing the document to the intended recipient when the intended recipient has proved their identity using a second part of the recipient's identifying token

55. A method according to Claim 54, further comprising obtaining details of the intended recipient including the independently verifiable data record prior to transmitting the document.

56. A method according to Claim 55 wherein the step of obtaining details comprises obtaining the independently verifiable data record from a central database storing many possible intended recipients' details.

57. A method according to any of Claims 54, wherein the intended recipient's independently verifiable data record is provided in an intended recipient's digital certificate.

58. A method according to any of Claims 54, further comprising encoding the document prior to transmitting it to the second station and decoding the received document once the intended recipient has proved their identity.

59. A method according to Claim 58, wherein the encoding/decoding steps comprise using enveloping encryption/decryption techniques.

60. A method of delivering a digital document from a first station via a communications network to an intended recipient at a second station, the method comprising:

obtaining details of the intended recipient, including an independently verifiable data record of the intended recipient at the first station, encoding the document using encryption techniques prior to transmitting it to the second station;

transmitting the document and the independently verifiable data record of the intended recipient to the second station;

receiving and securely retaining the transmitted document and data record at the second station;

obtaining a first part of an intended recipient's identifying token at the second station;

requesting proof of the intended recipient's identity at the second station using the transmitted independently verifiable data record; and

- 5 decoding the received document using decryption techniques and releasing the document to the intended recipient when the intended recipient has proved their identity using a second part of the recipient's identifying token.

61. A method according to Claim 60, further comprising obtaining details of the intended
10 recipient including the independently verifiable data record prior to transmitting the document.

62. A method according to Claim 61, wherein the step of obtaining details comprises
obtaining the independently verifiable data record from a central database storing many
15 possible intended recipients' details.

63. A method according to Claim 60, wherein the intended recipient's independently
verifiable data record is provided in an intended recipient's digital certificate.

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